

IN THE SPECIFICATION:

On page 5 of the English language translation of the specification, please amend the first heading of the specification to appear as follows:

~~Description~~ Technical Field

On page 5 of the English language translation of the specification, please add a heading between the first and second full paragraphs of the specification to appear as follows:

Background

On page 6 of the English Language translation of the specification, please amend the first full paragraph of the specification to appear as follows:

There are several types of prior art differential carriers which, substantially consist of a dish-shaped part and a cover part, with an assembly consisting of sideshaft gears and differential gears being accommodated in the rear part of the dish-shaped part, with the multi-plate coupling being arranged aside of same and, finally, with a cover with an integrally formed-on flange closing said assembly. In the case of differential drives with an externally controlled actuating device for actuating the multi-plate coupling, it is possible to arrange same inside the differential carrier, with the cover forming part of the actuating device (DE 199 42 044 C1) or being positioned outside the differential carrier, wherein the actuating device is supported on a sleeve projection at the cover part (~~DE 102 52 974 A1~~ U.S. Patent No. 6,571,928). The disadvantage of these designs is that, as a result of the bearing region of the differential carrier being formed on to the cover, a ~~centring~~ centering error of the cover relative to the dish-shaped part affects the concentric running characteristics of the differential carrier and thus of the ring gear.

On page 6 of the English Language translation of the specification, please amend the second full paragraph of the specification to appear as follows:

From ~~DE 197 09 523 C1~~ U.S. Patent No. 5,924,948, there is known a differential drive with a differential carrier. The differential carrier comprises a dish-shaped part with a base and with a flange as well as a cover which can be bolted to the flange. With

reference to a plane extending through the axes of rotation of the differential gears, the base and the flange of the dish-shaped part are arranged on different sides. This also applies to the differential drives known from ~~DE 101 03 789 A1 and DE 39 09 112 C2~~ U.S. Patent Nos. 6,592,487, 6,296,590 and 4,950,214.

On page 6 and continuing on page 7 of the English Language translation of the specification, please amend the third full paragraph of the specification to appear as follows:

~~DE 102 53 384 A1~~ U.S. Publication No. 2003/096670 proposes a differential drive with a dish-shaped differential carrier, and with reference to the central plane of the differential drive, a base and a flange of the dish-shaped differential carrier are jointly positioned on one side. On the opposite side, there is provided a cover which is placed on to the differential carrier and secured thereto by circumferentially distributed bolts.

On page 7 of the English language translation of the specification, please add a heading before the first full paragraph to appear as follows:

Summary Of The Invention

On page 7 of the English Language translation of the specification, please amend the first full paragraph of the specification to appear as follows:

~~It is the object of the~~ The present invention ~~to provide~~ provides a solution according to which the strength and the concentric running characteristics of the differential carrier can be improved.

On page 7 of the English Language translation of the specification, please amend the second full paragraph of the specification to appear as follows:

The solution is that the differential carrier is formed of a dish-shaped part comprising a base and an integrally formed-on flange, and of a cover which is inserted into the dish-shaped part and which is axially fixed by an annular securing element. ~~[[,]] and that the~~ The cover and the multi-plate coupling – with reference to a plane extending through the axes of rotation of the differential gears – are positioned in the differential carrier on the side located opposite the base and the flange. More particularly, ~~it is proposed that the~~ flange substantially overlaps with the base of the dish-shaped part.

On page 7 and continuing on page 8 of the English Language translation of the specification, please amend the third full paragraph of the specification to appear as follows:

According to ~~a preferred~~ one embodiment, there is provided an actuating device for actuating the multi-plate coupling, which actuating device can be arranged inside or outside the differential carrier. If the actuating device is arranged inside the differential carrier, it ~~is preferably~~ can be provided in the form of a differential-speed-sensing device, more particularly a shear pump device of the Viscolok type. It is particularly advantageous that the housing of the shear pump device is at least partially formed by the cover of the differential carrier. In the case of an embodiment where the actuating device is arranged outside the differential carrier, the actuating device ~~is preferably~~ can be provided in the form of an externally controllable device, more particularly a ball ramp setting device. It is advantageous that the ball ramp setting device is supported on a projection at the dish-shaped part of the differential carrier. As an alternative to the embodiment with an actuating device, the differential carrier can also be used in a self-locking differential drive without an external actuating device.

On page 9 of the English language translation of the specification, please add a heading before the first full paragraph to appear as follows:

Brief Description Of The Drawings

On page 9 of the English Language translation of the specification, please amend the fourth full paragraph of the specification to appear as follows:

Figure 3 shows an inventive differential carrier in a third embodiment:

- a) A) in a longitudinal section; and
- b) B) ~~it shows~~ the securing element according to Figure ~~3a)~~ 3A in the form of a detail.

On page 9 of the English language translation of the specification, please add a heading between the fourth and fifth full paragraphs to appear as follows:

Detailed Description

On page 9 and continuing to page 11 of the English Language translation of the specification, please amend the fifth full paragraph of the specification to appear as follows:

Figure 1 shows a differential carrier 11 which has to be rotatably supported in the housing of a differential drive. Support in this case is provided, more particularly, by two sleeve projections 12, 13 arranged coaxially relative to the longitudinal axis A of the differential carrier. The differential carrier comprises a dish-shaped first part 14 with a base 22, a casing 23 and an integrally formed-on flange 16 as well as a cover 15 inserted into the first part 14. A ring gear for rotatingly driving the differential carrier can be bolted to the flange 16. The first sleeve projection 12 is integrally connected to the first part 14 and the second sleeve projection 13 is integrally connected to the cover 15. By means of a securing ring 17, the cover 15 is held so as to be supported against a step in the dish-shaped first part 14. The securing ring 17 comprises an outwardly pointing conical face, so that the cover 15 is mounted in a play-free way in the first part 14. In the differential carrier 11 there are provided two output bevel gears 18, 19 arranged coaxially relative to the longitudinal axis A, and a number of (four) differential bevel gears whose axis of rotation is each positioned radially relative to the longitudinal axis A and of which two ~~[[()]]~~20, 21~~[[()]]~~ can be seen in this Figure. The teeth of the four differential bevel gears engage those of the two output bevel gears 18, 19 and are uniformly distributed around the circumference. The identifiable differential gears 20, 21

run slidingly on bearing arms 24, 25 which are inserted into radial bores 30, 31 in the first part 14 and held radially outwardly therein by securing rings 32, 33. By means of their inner ends 28, 29 whose diameter is reduced, the bearing arms 24, 25 are directly supported relative to one another. Said arms are laterally supported by a second pair of integrally produced arms 26, 27 and held relative to one another. The differential carrier 11 in the embodiment as shown here forms part of a lockable differential drive and comprises a multi-plate coupling 41 and a shear pump assembly 51 such as it is described in the applicant's publication ~~DE 196 19 891 C2~~. ~~Reference is therefore made to said disclosure~~ U.S. Patent No. 5,979,624, which is incorporated by reference herein. Therefore, only the most important details are mentioned. The assembly is filled with a fluid. The multi-plate coupling comprises a plate package 42 ~~consisting of~~ including first plates connected to the first part 14 in a rotationally fast way and of second plates connected to a coupling hub 43. The plate package is axially supported on a supporting disc 44 in the first part 14 if it is axially loaded by a setting piston 52 of the shear pump assembly 51. Furthermore, the shear pump 51 comprises a shear plate 54 connected to a pump hub 53 and a shear groove and control element 55 rotatable to a limited extent relative to the cover part 15 which, at the same time, forms the pump housing. In the cover part 15, there is formed a pump chamber 60 containing the shear plate 54 and the shear groove and control element 55. Furthermore, it is possible to identify in the cover part 15 a reservoir 61 which is formed by an annular chamber 56, an annular cover 57 and a plate spring 58 and which is connected by bores (not shown) to the pump chamber 60 of the shear pump 51. The output bevel gear 18 comprises inner teeth 34 into which it is possible to insert a first sideshaft. The output bevel gear 19 comprises second inner teeth 35 into which a second output shaft can be inserted. Inner teeth 45 of the coupling hub 43 and inner teeth 59 of the pump hub 53 correspond to the inner teeth 35 of the output bevel gear 19. The output bevel gear 19, the coupling hub 43 and the pump hub 53 are connected to one another in a rotationally fixed way by inserting a sideshaft. As a result, if there occurs a speed differential between the output bevel gear 19 and the differential carrier 11, a fluid pressure is built up in the shear pump 51 as a result of which the piston 52 is displaced against the plate package 42, so that the output bevel gear 19 is braked relative to the differential carrier 11. The piston 52 and the cover 15 are sealed relative to one another by seals 62, 63. Via sliding discs 36, 37, the output bevel gear 18 and the pump hub 53 are axially supported relative to the differential carrier 11 in a low-friction way.

On page 11 and continuing to page 13 of the English Language translation of the specification, please amend the first full paragraph of the specification to appear as follows:

Figure 2 shows a differential carrier 11' which has to be rotatably supported in the housing of the differential drive. Support, in this case, is provided more particularly on two sleeve projections 12' 13' which are positioned coaxially relative to the longitudinal axis A of the differential carrier. The differential carrier comprises a dish-shaped first part 14' with a base 22', a casing 23' and an integrally formed-on flange 16' as well as a cover 15' inserted into the first part 14'. A ring gear for rotatingly driving the differential carrier can be bolted to the flange 16'. The first sleeve projection 12' is integrally connected to the first part 14' and the second sleeve projection 13' is integrally connected to the cover 15'. By means of a securing ring 17, the cover 15' is held in the dish-shaped part 14 in an axially play-free way. In the differential carrier there are provided two output bevel gears 18, 19 arranged coaxially relative to the longitudinal axis A, and a number of (four) differential bevel gears whose axis of rotation R is each positioned radially relative to the longitudinal axis A and of which two [() 20, 21 ()] can be seen in this Figure. The teeth of the four differential bevel gears engage those of the two output bevel gears 18, 19 and are uniformly distributed around the circumference. The identifiable differential gears 20, 21 run slidingly on bearing arms 24, 25 which are inserted into radial bores 30, 31 in the first part 14 and held radially outwardly therein by securing rings 32, 33. By means of their inner ends 28, 29 whose diameter is reduced, the bearing arms 24, 25 are directly supported relative to one another. Said arms are laterally supported by a second pair of arms 26, 27 and held relative to one another. The differential carrier in the embodiment as shown here forms part of a lockable differential drive and comprises a multi-plate coupling 41 and a ramp disc assembly 71 such as it is described in the applicant's publication DE 101 29 795 A1 U.S. Patent No. 7,000,492 for example, which is incorporated by reference herein. ~~Reference is therefore made to said disclosure.~~ Therefore, only the most important details are mentioned. The multi-plate coupling comprises a plate package 42 ~~consisting of~~ including first plates connected to the first part 14 in a rotationally fixed way and of second plates connected to a coupling hub 43. The plate package 42 is axially supported on a supporting disc 44 in the first part 14 if it is axially loaded by pressure pins 72 of the ramp disc assembly 71. The supporting disc 44, in turn, is axially supported at the end of a recess in the first part 14. The ramp disc assembly 71 is arranged on a reinforced first portion 39 of the second sleeve projection 13'. It comprises a setting disc 73 which, via a needle bearing 75, is supported on the portion 39 and which is rotatingly adjustable via a tooth segment 74. Furthermore, it comprises a pressure disc 76 which, via a holding projection 77, can be secured in a housing in a rotationally fixed way. In those faces of the setting disc 73 and of the pressure disc 76 which face one another, there is arranged a plurality of ball grooves 78, 79 which extend along delimited circumferential regions whose depths vary in opposite directions. Each pair of ball grooves 78, 79 accommodates a ball 80. The balls are held at a constant distance from one another by a ball cage 81. The setting disc 73 is supported via an

axial bearing 82 on a disc 83 which is held by a securing ring 84 on the portion 39. The pressure disc 76 is radially centred entirely by the balls 80 and acts on a pressure plate 86 via an axial bearing 85. Said pressure plate 86 loads the pressure pins 72. The output bevel gear 18 comprises inner teeth 34 into which a first sideshaft can be inserted; the output bevel gear 19 comprises second inner teeth 35 into which a second output shaft can be inserted. Inner teeth 45 of the coupling hub 43 correspond to the inner teeth 35. By inserting a sideshaft, the output bevel gear 19 and the coupling hub 43 are connected to one another in a rotationally fast way. The output bevel gear 18 and the coupling hub 43 are supported relative to the differential carrier via sliding discs 36, 37 in an axially low-friction way.